

XXX. *Extract of a Letter from Mr. John Lindsay, Surgeon in Jamaica, to Sir Joseph Banks, Bart. P. R. S. and H. M. L. S. dated June 30, 1792.*

*Read April 2, 1793.*

SIR,

**I**N my last letter I mentioned I had sown some of the fine dust or farina from the fructification of *Lycopodium cernuum*, and that from the capitula, generally called antheræ, of *Bryum caespitium*, or a species very like it, but I then thought their success somewhat doubtful. I have since repeatedly sown them both, and in a proper situation find they grow very readily.

Encouraged by this, I sowed that curious part of the fructification of *Marchantia polymorpha*, composed of fine elastic filaments and small globules (commonly considered as the male parts), where none of these plants had ever been before. In a short time I found there several young *Marchantiæ*, which are now growing freely. I lament I could not get any of the genus *Equisetum*, for a similar trial; but am much inclined to believe that the farina, from its fructification, will likewise produce young plants.

From these instances of young plants being produced from those parts of the fructification of Cryptogamous plants which have been, as far as I have been informed, hitherto considered

as the male parts, I have little doubt but it would be found on a fair trial that, in a very great proportion of Cryptogamous plants, the real female parts have been mistaken for the male.

In this view the *Marchantia* bearing seeds of another kind in small sessile cups, which also readily grow, may give the appearance of unnecessary superfluity; but in this respect the *Marchantia* is not singular. May not this last kind of seeds be considered as in some measure analogous to those luxuriant productions of young plants in many vegetables (hence called viviparous) in place of seeds, rather than as a necessary part of the genuine fructification? Such examples are frequent in the tribe of *Gramina*, in the genus *Allium*, and others, and also among the Cryptogamous plants. There is a fern here, seeming a *Pteris*, growing by the edges of ponds, which is plentifully propagated by the falling of the leaves loaded with young plants into the water; yet this has its fructification and seeds in the usual manner, and the seeds readily grow.

---

#### ADDITIONAL REMARKS,

By JAMES EDWARD SMITH, M. D. P. L. S.

THE foregoing observations of Mr. Lindsay are highly worthy of attention, as confirming the Hedwigian theory of the fructification of mosses; and the result of his experiment on the *Bryum* was the same with those made on the same genus by Hedwig.

The raising of any species of *Lycopodium* from its farina has not to my knowledge been described as practicable; Mr. Lindsay, there-

therefore, has all the merit of an original observer. It is not to detract from his due praise, but to do justice to unostentatious ingenuity, that I now mention Joseph Fox, a journeyman weaver of Norwich, as having made similar experiments upon *Lycopodium Selago* with the like success. He shewed me, in the year 1779, young plants of this species raised from seed in his own garden. This humble observer, whose name has not yet appeared in any book, is the original discoverer of many rare plants in the county of Norfolk, and it is with pleasure I commemorate his former assistance to myself.